

# IEMA

Illinois Emergency Management Agency

Division of Nuclear Safety

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**PR 73**

**(75FR62695)**

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USNRC

Secretary

U.S. Nuclear Regulatory Commission

Washington, DC 20555-0001

Attn: Rulemaking and Adjudications Staff

February 22, 2011 (3:05 pm)

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

Re: Docket ID: NRC-2009-0163

10CFR Part 73 Physical Protection of Irradiated Reactor Fuel in Transit Proposed Rule

To Whom It May Concern:

This letter is in response to the United States Nuclear Regulatory Commission's (NRC) request for public comments on the proposed rule making and amendments to 10 CFR Part 73. The Illinois Emergency Management Agency, Division of Nuclear Safety (IEMA) would like to take this opportunity to provide feedback on key issues that we believe should be addressed in the proposed rule in order to affectively take this opportunity to improve the existing regulations. These comments focus on the proposed rule and are not intended to encompass any future comments on the accompanying guidance document.

Due to our geographic location within the United States and well developed transportation infrastructure, the State of Illinois is a primary transportation corridor for radioactive materials shipping. With the opening of a national repository or regional storage facility for spent nuclear fuel (SNF) Illinois will likely see a significant number of SNF shipments originating in or traversing the state. Illinois has been proactive in the regulation of radioactive materials shipments and has a long standing inspection and escort program that addresses movements of SNF and other classes of radioactive materials.

First and foremost, IEMA would like to thank the NRC for its efforts to recognize states as co-regulators in the transportation of SNF and other high activity shipments. We believe that states like Illinois who are active in the regulation of radioactive material shipments offer practical experience and background knowledge that will help the NRC with its goal of ensuring the safe and secure transport of SNF. We applaud the NRC for their efforts to bring shipment planning to the forefront and for recognizing that early coordination with states on issues like routing, identification of safe havens and other important aspects of shipping is paramount to the success of any SNF campaign.

Based on our review of the proposed rule, IEMA would ask that the NRC consider the following comments:



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- **Safe Haven**

73.37 (b) (1) (iv) (d) and (vi) (A) would require licensee's and states to identify safe havens along a designated route. IEMA agrees with the NRC that this is an issue that is critical to the safety and security of the shipment. However, the proposed rule is vague with respect to who has the final determination regarding the location of safe havens. It is IEMA's position that each state has the best working knowledge of its infrastructure, emergency response coordination; local law enforcement capabilities etc. and therefore, states should have the final determination on the location of safe havens within its borders.

- **Notification**

10 CFR 73.37(b) (2), requires that advance notification delivered by mail must be postmarked at least 7 days before transport of a shipment within or through a State. If a notification is delivered by any other method it must reach the office of the Governor, or the Governor's designee, a minimum of 4 days before the scheduled departure of the shipment.

Recent Agency experience suggests that the NRC should reconsider the existing time line for advance notification. In order to affectively and efficiently fulfill the mandates of the state with regard to inspections and security escorts, IEMA believes the advanced notification should be postmarked at least 10 days prior to the commencement of a shipment and arrive on the Governor's or his/her designees' desk a minimum of 7 days before a shipment is scheduled to depart. This may seem moot since 73.37 (b) (1) would require coordination between the licensee and the state. However, IEMA believes the additional time would reduce the coordination and staffing burden on states and providing an additional "cushion" for state agencies tasked with providing SAFEGUARDS communications to other state agencies with a need-to-know or who may be participating in inspection or security operations.

- **Postponement and Cancellation**

10 CFR 73.37 (b) (2) identifies the requirements for both revision notices and cancellation notices for SNF shipments. IEMA suggests the NRC insert a revision limit into the rule that would only allow a licensee to revise the schedule a pre-determined number of times before it would be required to be officially postponed or cancelled. Alternately, they could insert a maximum number of hours a shipment may be delayed before a cancellation notice must be issued to the Governor or his designee.

Under 49 CFR 385.415 (b) (1) Before a motor vehicle transporting a highway route controlled quantity of a Class 7 material, the motor carrier must have a pre-trip inspection performed on each motor vehicle used to transport a HRCQ of Class 7 material. The inspections must be performed in accordance with the requirements of the "North American Standard Out-of-Service Criteria and a Level VI Procedures and Out-of-Service Criteria for Commercial Highway Vehicles Transporting Transuramics and HRCQ of Radioactive Materials as defined in 49 CFR.403". The vast majorities of SNF shipments meet the HRCQ definition and therefore requires a CVSA Point of Origin Level VI inspection. This U.S. DOT requirement, along with various states mandates, result in States committing resources for training and staffing positions necessary to conduct these inspections. IEMA understands that shipping

schedules are dynamic and are frequently delayed or postponed for varying reasons. However, allowing a shipper open ended delays can significantly impact a state's ability to provide the necessary resources to complete the required inspections and provide escorts, on a timely basis.

- **Background Investigation**

IEMA agrees with the NRC's proposal regarding background checks for licensees as set forth in 73.38 Personnel access authorization requirements for irradiated reactor fuel in transit. However, IEMA believes that the requirement for background checks should include all entities that are involved with SNF shipments including Governor's designee and any state or tribal entity that is entrusted with SAFEGUARDS information, aids in the planning and coordination of an SNF shipment or has unescorted access to an SNF shipment. LLEA would continue to be exempted since they require a pre-employment background check. Under the proposed rule, all other entities involved with the totality of an SNF shipment are required to fulfill the background investigation requirement. IEMA believes by requiring state and tribal personnel be held to the same access authorization requirements as licensees, an increased level of shipment security will be achieved.

- **Technology Security**

The NRC has indicated that "the objective of the physical protection systems is to minimize the potential for theft, diversion or radiological sabotage of SNF shipments and to facilitate the location and recovery of SNF shipments that may have come under the control of authorized individuals." To that end, IEMA suggests the proposed rule include a requirement that licensees acting as shippers perform an Operational Security (OPSEC) assessment with regards to smart and cyber technology.

The United States Department of Defense defines OPSEC as a process of identifying critical information and analyzing friendly actions attendant to military operations and other activities including: identifying those actions that can be observed by adversary intelligence systems, determining indicators that hostile intelligence systems might obtain that could be interpreted or pieced together to derive critical intelligence in time to be useful to adversaries, selecting and executing measures that eliminate or reduce to an acceptable level the vulnerabilities of friendly actions to adversary exploitation. (DoD Directive 5205.2, "DoD Operations Security Program," March 6, 2006).

The use of smart phones, smart media and social networking to communicate, whether it be social or business, creates the challenge not only identity protection but location protection. The process of adding geographical coordinate data to pictures, video, SMS messages and websites is known as geo-tagging and can be automatically and unknowingly embedded into these types of data via the technology being used. The U.S. Military is so concerned about their troops inadvertently providing our adversaries with critical geographical information through smart media that they have issued guidance on the use of such technology.

Whether it be the personal cell phones used by the drivers of an SNF shipment or the camera that is used to photograph a safe haven, IEMA believes it prudent that the NRC require licensees and their contractors involved with the transport of SNF to evaluate these

technologies and reduce the release of critical geographical information associated with a SNF shipment (s) to unauthorized individuals.

- **Unnecessary Delays**

In both the proposed rule and associated guidance, the NRC stresses and makes multiple references to “unnecessary delays”. As state programs involved in shipment security we are well aware of and understand the concept that shipments are least vulnerable when moving. However, we also recognize that for both highway and rail modes of transport periodic stops are necessary for a variety of reasons including but not limited to; food and fuel, vehicle repairs, bad weather and inspections for highway shipments and crew change, rail traffic routing and inspections for rail movements. Our experience with planning and execution of SNF shipping campaigns for both highway and rail suggests that every effort should be made to minimize the number of stops and that this should be achieved through planning and coordination. We are concerned that the emphasis in the proposed rule will lead shippers and carriers to believe they can use this reference to avoid state mandated inspections and that it may also impact negotiations for stopping points, during the planning phase.

Assuming any future large scale SNF shipping campaign would follow the previously identified DOE preferences, i.e. mostly rail, dedicated train, we would like to ensure that the NRC considers the stops and delays inherent in the rail system. That is, depending on the particular route and rail availability, a multi-cask SNF movement by rail would be put in sidings and stop many times along a route. Dedicated trains will be short trains that easily fit in sidings and they will likely travel at speeds less than track speed. Therefore, the potential for stops related to traffic management within the rail system are significant, even when compared to stops for inspections.

As a final comment relative to “unnecessary delays”, we would like to point out that the development of the Commercial Vehicle Safety Alliance (CVSA) North American inspection standard and process for highway shipments of SNF has significantly reduced the time necessary for stops at state borders. Reciprocity for inspections is an important component of the program and the NRC should encourage state participation in the CVSA program to decrease delay time. We firmly believe that this highlights the need for a similar program for rail movements of SNF. The program should be developed, implemented and supported by U.S. DOT and the Federal Railroad Commission. A program for rail shipments that is similar to the CVSA program would result in a significant decrease in delay times for multi-cask shipments of SNF by rail.

- **Uniformity of Terminology**

IEMA suggests the NRC and the United States Department of Energy (DOE) establish and adopt a universal system for classification, management and dissemination of SAFEGUARDS information. Use of a single classification would eliminate the confusion caused by bouncing back and forth between the NRC and DOE individual marking and control requirements. IEMA agrees with Executive Order 13556 of November 4, 2010, “This inefficient, confusing patchwork has resulted in inconsistent marking and safeguarding of documents, led to unclear or unnecessarily restrictive dissemination policies and created impediments to authorized information sharing.”

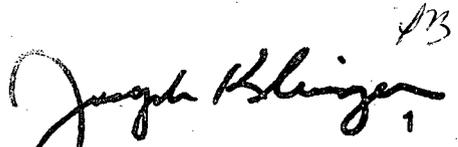
Alternately, DOE could chose to simply follow NRC standards for non-classified shipments of SNF. At this time it is not clear if SNF currently stored at 106 nuclear generating stations nationwide will eventually be sent to a regional storage facility or a national repository. Under a "yet to be developed" storage program, it is not clear if shipments to a regional facility would be made under a DOE program or as commercial SNF shipments. Redundant regulations for the same activity do not make sense and do not present a practical solution to ensuring the safety and security of SNF in transit.

- **SAFEGUARDS Classification**

With the additional planning and coordination that will be necessary on a State by State basis for identifying safe havens, scheduling security escorts, establishing communications and emergency procedures etc. we believe this would be an appropriate time for the NRC to further examine those plans, documents and communications that should be classified as SAFEGUARDS information. Our experience suggests transportation plans, which may include security or response details, typically go through several iterations and are often passed back and forth through unencrypted or otherwise non-secure email systems. Considering the level of effort that will be going into operational security, background checks and other aspects of physical protection, we believe this is a good time to ensure that information security is maintained at the highest level necessary and that individuals responsible for maintaining the appropriate controls on SAFEGUARDS information are properly trained.

IEMA would like to thank the NRC for the opportunity to comment on the proposed regulation and we look forward to working with you in the future to achieve our common goal; the health and safety of the public, the common defense of the country and the environment through the safe and secure use of radioactive material.

Sincerely,

 JB  
Joseph Klinger  
Assistant Director